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## ABSTRACT

Comprised of 27 classrooms from grade levels 1-6, the program was primarily designed to provide bilingual education for pupils with limited English speaking ability. However, due to parental requests, almost 16% monolingual English-speakers were accepted into the program. Of the 717 pupils participating in the program 84.6% were Mexican American. Goals for the Mexican American pupils were to: prevent their educational retardation by instructing them in Spanish while developing their command of English; enhance their understanding and cognitive development in both languages; give them the advantage of becoming literate in both languages; and instill a knowledge of and pride in their bicultural heritage. Goals for the other pupils were to: develop understanding and respect for both cultures; develop oral communication skills in both languages; and develop reading and written communication skills in both languages. This report discusses the test results from the: Psychomotor Skills Learned and Demonstrated--Mexican games, songs, and dances; Boehm Test of Basic Concepts; Prueba de Lectura (Spanish Reading Test); Projected Self-Concept Inventory; and Comprehensive Test of Basic Skills. Both English and Spanish versions of these tests were administered on a pre- and posttest basis. Comparisons of the achievement test results for grades 1-5 are included. (NQ)

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**FINAL EVALUATION REPORT**  
**OF THE**  
**SAN MARCOS CONSOLIDATED INDEPENDENT SCHOOL DISTRICT'S**  
**BILINGUAL EDUCATION PROGRAM**

**1975-1976**

**U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
EDUCATION**

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**Submitted To:**

**Mr. Luis G. Delgadillo**  
**Project Director**

**and**

**The U. S. Office of Education as a report  
of the first year's progress, under the  
provisions of Title VII of P.L. 89-10, as  
amended.**

**GRANT--G00 7506967**

**by**

**Dr. Helene W. Harrison**  
**Evaluator**

RC 009323

### RECOMMENDATIONS

This school district has decided it is possible to dispense with federal funding and to fund the bilingual program on its own. Therefore, it becomes imperative that the commitment to bilingual education which has produced this improved educational opportunity\* for this community's children be continued. It is also imperative to strengthen and extend this commitment to encompass all administrative and instructional personnel in the district. Continued evaluation of the bilingual education program is needed in order to produce proof of its accomplishments and to convince personnel of the school district and members of the community of the validity of this program.

\*See "Longitudinal Study".

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## FINAL EVALUATION REPORT

This program comprised classrooms from grade levels 1-6 and was primarily designed to provide bilingual education for pupils who have limited English-speaking ability. However, due to parental requests, almost 16% monolingual English-speakers were accepted into the program. (See Table I, Ethnic Breakdown.) The goals for children with limited English-speaking ability in the program are these: (1) to prevent their educational retardation by instructing them in Spanish while their command of English is being developed; (2) to enhance their understanding and cognitive development in both languages; (3) to provide them with the opportunity to further develop their home language, thus giving them the advantage of becoming literate in both languages; (4) to instill in them knowledge of and pride in their bicultural heritage. Goals for other children in the program were these: (1) to develop understanding and respect for both cultures; (2) to develop oral communication skills in English and Spanish; (3) to develop reading and written communication skills in both languages.

Non-teaching project personnel consisted of the director, the classroom instructional coordinator, the part-time evaluator, the student intern/ bilingual teachers' aides, the community liaison and the secretary. The project embodied several components: (1) development of and revision of curriculum for bilingual classes; (2) staff development of bilingual teachers and aides; (3) parental and community involvement, and (4) bilingual instruction in grades 1-6.

Primary responsibility for the first component rests in the hands of the classroom instructional coordinator (a new position this year). The

TABLE I  
ETHNIC BREAKDOWN OF  
BILINGUAL EDUCATION PROGRAM

| SCHOOL                       |       | PRINCIPAL             |       |        |        |
|------------------------------|-------|-----------------------|-------|--------|--------|
| Teacher                      | Grade | Mex.Am.               | Anglo | Negro  | Total  |
| BOWIE ELEMENTARY             |       | MR. BERNARD CALLENDER |       |        |        |
| Mrs. Dora Luera              | 1     | 31                    | 10    | 4      | 45     |
| Mrs. Loretta Mata            | 1     | 26                    | 0     | 0      | 26     |
| Miss Mary Borrego            | 2     | 31                    | 5     | 3      | 39     |
| Mrs. Francisca Muñoz         | 2     | 46                    | 6     | 1      | 53     |
| Mrs. Concepción García       | 3     | 50                    | 6     | 4      | 60     |
| Mrs. Martha Ortiz            | 4     | 26                    | 0     | 1      | 27     |
| Miss Luisa Gutierrez         | 5     | 32                    | 7     | 3      | 42     |
| TOTAL -- BOWIE ELEMENTARY    |       | 242                   | 34    | 16     | 292    |
| CROCKETT ELEMENTARY          |       | MR. BUSH EWING        |       |        |        |
| Mrs. Bertha Delgado          | 1     | 19                    | 7     | 0      | 26     |
| Miss Carmen Gracia           | 1     | 19                    | 5     | 0      | 24     |
| Mrs. Rosa Aldape             | 2     | 25                    | 1     | 0      | 26     |
| Mrs. Estela Perez            | 2     | 18                    | 2     | 0      | 20     |
| Mrs. Inez Ramsay             | 3     | 16                    | 1     | 0      | 17     |
| Mrs. Frances Rivas           | 3     | 12                    | 4     | 0      | 16     |
| Miss Juanita Vasquez         | 4     | 25                    | 0     | 0      | 25     |
| Mrs. Rosabel Santellana      | 5     | 20                    | 4     | 0      | 24     |
| TOTAL -- CROCKETT ELEMENTARY |       | 154                   | 24    | 0      | 178    |
| TRAVIS ELEMENTARY            |       | MR. R. B. DOYLE       |       |        |        |
| Mrs. Yolanda Espinoza        | 1     | 19                    | 1     | 0      | 20     |
| Miss Juanita Solís           | 1     | 19                    | 3     | 0      | 22     |
| Miss Nancy Garza             | 2     | 22                    | 4     | 0      | 26     |
| Miss Angie Vargas            | 2     | 21                    | 5     | 0      | 26     |
| Miss Linda Orozco            | 3     | 31                    | 8     | 0      | 39     |
| Mrs. Sandra Barbaz           | 4     | 20                    | 6     | 1      | 27     |
| Miss Juanita Ortega          | 5     | 26                    | 8     | 0      | 34     |
| TOTAL -- TRAVIS ELEMENTARY   |       | 158                   | 35    | 1      | 194    |
| LAMAR INTERMEDIATE           |       | MRS. SOILA RODRÍGUEZ  |       |        |        |
| Mrs. Sandra Degerstrom       | 6     | 25                    | 0     | 0      | 25     |
| Mr. Mario Garza              | 6     | 26                    | 0     | 0      | 26     |
| TOTAL -- LAMAR INTERMEDIATE  |       | 51                    | 0     | 0      | 51     |
| TOTAL ENROLLMENT IN BEP --   |       | 605                   | 93    | 17     | 715    |
|                              |       | (84.6%)               | (13%) | (2.4%) | (100%) |

coordinator has enhanced coordination between local administrative personnel, the teachers and project personnel. With the assistance of the director she has developed scope and sequence for the Spanish curriculum and continuity for other bilingual subject matter areas, particularly the ESL (English as a second language) and the SSL (Spanish as a second language) areas. Because of these efforts the total language arts program has been vastly improved. Results are evident from scores for reading and language, which will be discussed later in the instruction portion of this report.

The second component, staff development of bilingual teachers, is a shared responsibility of the instructional coordinator and the director. For this year this component consisted of inservice training and of attendance at the Fifth International Bilingual-Bicultural Education Conference. Twenty-four teachers (89% of the teachers in the project) attended at least one day of this conference in San Antonio in order to gain instructional ideas, evaluate new materials on the market, and share teaching experiences. Inservice training was made available to teachers in fields which needs assessment<sup>and evaluation</sup> had revealed would strengthen the instructional program. These diverse subjects were the focus of the twenty-three half or full day sessions: team-teaching planning and strategies, using Spanish as a medium of instruction, testing for language dominance, techniques for developing oral language proficiency in pupils, and improving reading instruction. The mean number of hours of inservice training received by project teachers was 32.57, of which 19.61 were on non-school days and 12.96 were on school days. This strong inservice program should be considered as one of the factors involved in improved performance in all subject matter areas by project pupils as revealed by achievement test scores.

The third component was parental and community involvement. The community liaison person improved relationships between home and school by frequent home visits, ascertaining causes of any lengthy pupil absence from school and aiding in the solution of problems with which parents needed help. The community liaison encouraged pupil participation in the community Cinco de Mayo celebration in May, and more than three hundred pupils did participate. In addition two bilingual education programs were the work of this project. Several hundred parents contributed time and effort in making of costumes and other jobs connected with the programs. More than five hundred pupils from first through sixth grade demonstrated psychomotor skills they had gained in performing songs, dances and skits which demonstrated its multicultural heritage to the community's pleasure. (See Table II.)

Monthly meetings of the Community Advisory Board for Bilingual Education were held. This organization consists of parents and teachers. A constitution and by-laws were drawn up, and officers were elected. Topics for discussion were decided upon by the parents, and informative sessions were held in which curriculum and evaluation were two of the topics.

In April a workshop was held by IDRA (Intercultural Development Research Association) for a group of forty people composed of parents, principals, bilingual office staff, and school district administrative staff. The goals for the workshop were to acquaint participants with basic information about bilingual education in order to provide participants with a common framework for making decisions about bilingual education and to provide participants with understanding of what their individual contribution to bilingual education could and should be. The workshop was immensely successful in achieving its goals.

The remainder of this report will be devoted to the fourth component of this program, bilingual instruction for grades 1-6.

TABLE II  
PSYCHOMOTOR SKILLS LEARNED AND DEMONSTRATED:  
MEXICAN GAMES, SONGS AND DANCES

| <u>Grade Level</u>              | <u>Number of<br/>Pupils Performing<br/>On Programs</u> | <u>Percentage of<br/>Pupils Performing<br/>On Programs</u> |
|---------------------------------|--------------------------------------------------------|------------------------------------------------------------|
| 1                               | 101                                                    | 62%                                                        |
| 2                               | 132                                                    | 69%                                                        |
| 3                               | 87                                                     | 67%                                                        |
| 4                               | 87                                                     | 100%                                                       |
| 5                               | 57                                                     | 63%                                                        |
| 6                               | 51                                                     | 100%                                                       |
| SUMMARY FOR ALL<br>GRADE LEVELS | 515                                                    | 72%                                                        |

## Bilingual Instruction for Grades 1-6

There were twenty-five classrooms of grade levels 1-5 located in the three elementary schools of the district and two classrooms of sixth grade located in the district's middle school. (See Table III.)

Testing in bilingual classrooms proceeded on schedule. In September and in March the Boehm Test of Basic Concepts was administered to all project pupils in first grade. Both a Spanish and an English version of the test (Form B of the Spanish and Form A of the English version in the fall, the converse in the spring) were administered by first grade teachers. This particular test had decided advantage for use with pupils in this project because interpretation of scores allows for differences in capability and performance due to socio-economic background of pupils. Pupils were categorized by their teachers as to three socioeconomic backgrounds; low, middle or high. Then separate national percentile tables derived for the three backgrounds were used in interpreting pupils' raw scores. This method represented a more accurate way of judging a pupil's performance against his background.

Following both administrations, tests were scored by bilingual office staff immediately, and teachers were returned a copy of the class record showing individual pupil performance on each item in order that they could help the pupils to achieve mastery over these basic concepts necessary for successful academic work. Percentile scores were also included on the class record. In addition, in the fall the evaluator supplied first grade teachers with two lists of basic concepts in English and in Spanish: (1) concepts covered by the test; (2) other concepts considered equally essential for

TABLE III  
TEACHERS, SCHOOLS, AND SUMMARY OF PUPIL DATA

| <u>TEACHER</u> | <u>SCHOOL</u> | <u>GRADE</u> | <u>NUMBER OF PUPILS</u> |
|----------------|---------------|--------------|-------------------------|
| Luera          | Bowie         | 1            | 45                      |
| Mata           | Bowie         | 1            | 26                      |
| Borrego        | Bowie         | 2            | 39                      |
| Muñoz          | Bowie         | 2            | 53                      |
| García         | Bowie         | 3            | 60                      |
| Ortiz          | Bowie         | 4            | 27                      |
| Gutierrez      | Bowie         | 5            | 42                      |
| Delgado        | Crockett      | 1            | 26                      |
| Gracia         | Crockett      | 1            | 24                      |
| Aldape         | Crockett      | 2            | 26                      |
| Perez          | Crockett      | 2            | 20                      |
| Ramsay         | Crockett      | 3            | 17                      |
| Rivas          | Crockett      | 3            | 16                      |
| Vasquez        | Crockett      | 4            | 25                      |
| Santellana     | Crockett      | 5            | 24                      |
| Espinoza       | Travis        | 1            | 20                      |
| Solis          | Travis        | 1            | 22                      |
| Garza          | Travis        | 2            | 26                      |
| Vargas         | Travis        | 2            | 26                      |
| Orozco         | Travis        | 3            | 18                      |
| Ward           | Travis        | 3            | 20                      |
| Bazbaz         | Travis        | 4            | 21                      |
| Watson         | Travis        | 4            | 18                      |
| Ortega         | Travis        | 5            | 14                      |
| Claybourn      | Travis        | 5            | 11                      |
| Degerstrom     | Lamar         | 6            | 25                      |
| Garza          | Lamar         | 6            | 26                      |
| <b>TOTALS:</b> |               |              |                         |
| 27 Teachers    | 4 Schools     |              | 717 Pupils              |

the child to be able to undertake academic work successfully. Information on instructional procedure for developing these concepts was supplied as well.

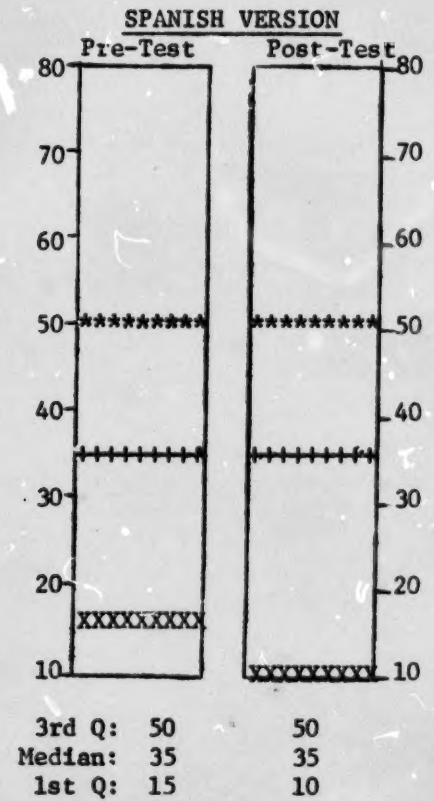
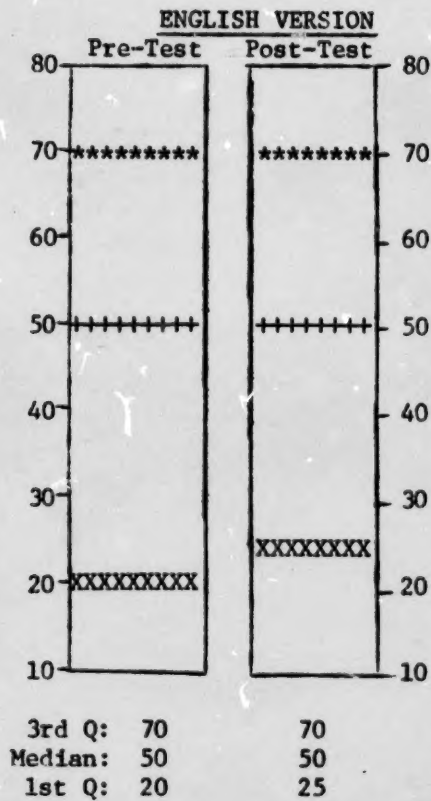
Bilingual office staff scored all tests except the CTBS, which were scored by the company. The evaluator followed her practice of sending feedback on all test scores to project teachers as soon as possible in order to aid them in diagnosing pupil weaknesses and beginning corrective action. Scores for all evaluation instruments were put on cards and electronically processed.

This program's objectives were that each pupil attain as high a percentile on the post-test as on the pre-test in each language, thus revealing normal development in basic concepts. Sixty percent of the pupils accomplished this in English, and fifty-six percent did so in Spanish. Interquartiles and medians were derived from fall and spring scores. Comparison of these for both languages reveals little change. (See Table IV.)

Materials used for Spanish oral language and reading instruction in first and second grade this year were the BOLAR materials developed by the Southwest Educational Laboratory. Also developed by Southwest Lab were tests specifically designed to evaluate mastery of the BOLAR materials. As a group of pupils (or individual pupils) completes the first level of materials, they are tested on that level in order to ascertain if they are ready to move to the next level or need additional work on the old level. There are two levels of Spanish available for first grade and two for second grade. The percentage of pupils successfully completing each level of the materials, as determined by test performance, is 88% for I and 67% for II in first grade and 78% for I and 55% for II in second grade.

TABLE IV

BOEHM TEST OF BASIC CONCEPTS\*  
Interquartiles and Medians\*\*



\*Figures indicate national percentile.

\*\*1st Quartile: XXXXX

Median: +++++

3rd Quartile: \*\*\*\*\*

The Prueba de Lectura (Spanish reading test) was given in September and again in March in grades 3-6 by project teachers. Having found in the past that the levels of the test were unsuitable for the grades specified by the developer who has as yet not normed the test, it was decided to administer Level I for third and fourth grades and Level II for fifth and sixth. Data for this test is given in raw scores. The total possible score for Level I is 80 and for Level II, 110.

The objective was an increase of 10 points in score from pre- to post-test. Two-thirds of the pupils in grades 3 and 5 fulfilled this objective, but only 12% in fourth and 38% in sixth grade accomplished this. However, means and standard deviations which were computed for each grade level for fall and spring (See Table V) show substantial increases on each grade level but fourth. The mean increases per grade level were 15.13 for third, 4.42 for fourth, 14.08 for fifth, and 8.76 for sixth. A t-test run to ascertain if increases in test scores <sup>were</sup> statistically significant determined that these increases were significant to the .05 level of confidence on every grade level but fourth. This is an important accomplishment in the area of Spanish reading.

The affective domain was evaluated through the use of the Conoley-Harrison Projected Self-Concept Inventory. This instrument was developed in the summer of 1974 by two educators who had become dissatisfied with various deficiencies of existing self-concept instruments and wanted to construct an improved instrument for this area. This instrument was based on the general theory of the life stages as hypothesized by Eric Erikson. All instructions for the Inventory are given in both English and Spanish. The Inventory consists of a series of twenty pictures. The teacher reads

TABLE V  
PRUEBA DE LECTURA--SPANISH READING TEST\*

| <u>Grade</u> |           | <u>Mean</u> | <u>Standard<br/>Deviation</u> | <u>Number<br/>Of Pupils<br/>Tested</u> |
|--------------|-----------|-------------|-------------------------------|----------------------------------------|
| 3            | Pre-Test  | 36.75       | 15.80                         | 92                                     |
|              | Post-Test | 51.88       | 13.75                         | 92                                     |
| 4            | Pre-Test  | 64.33       | 15.38                         | 52                                     |
|              | Post-Test | 68.75       | 9.40                          | 52                                     |
| 5            | Pre-Test  | 39.00       | 12.67                         | 59                                     |
|              | Post-Test | 53.08       | 17.19                         | 59                                     |
| 6            | Pre-Test  | 48.96       | 17.93                         | 47                                     |
|              | Post-Test | 57.72       | 18.63                         | 47                                     |

Percentage of Pupils Attaining 10 Point Increase in Raw Score

Grade 3, 67%

Grade 4, 12%

Grade 5, 68%

Grade 6, 38%

\*Figures represent raw scores.

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a statement, and the pupil picks one from a set of two pictures which he thinks most accurately reflects the statement. The twenty pictures and statements deal with some aspect or other of the pupil's academic life. The highest possible score is 20; the lowest, 0.

This project and the Bilingual Education Program of Harlandale Independent School District in San Antonio were allowed free use of the Inventory in 1974-75 in return for fieldtesting it. This testing was utilized in validity and reliability studies by the originators. Analysis of item-test correlations revealed that for the separate contribution of each factor to the total score intercorrelations were relatively low, indicating the usefulness of each item to the total measurement. Measurement of internal consistency of the test (reliability), using the Kuder-Richardson split-half method, produced a correlation coefficient of .6254. Correlating test results with a rating scale filled out by the children's teachers produced statistically significant relationships with a positive correlation of .3061, significant to the .01 level of confidence, giving credence to the assumption of validity of the instrument.

A few revisions in the Inventory were made in the summer of 1975, and again this year both the San Marcos and the Harlandale bilingual projects were allowed free use of the instrument in the interest of further research. In order to eliminate over-exposure by pupils to the measure year after year, it was decided to restrict use of the measure to only part of the bilingual classrooms this year. The most feasible method was to employ the instrument in one project school this year, another school next year and so on.

The San Marcos school selected this year was Travis Elementary School which contains 37% of the project classrooms. All bilingual classrooms there at all five grade levels were administered the Inventory by classroom teachers in September and again in March. Feedback was given to teachers in terms of raw score with a broad interpretation (drawn from last year's scores) that a total score of 10 or below was low, a score of 11-15 was average, and a score of 16 or above was high. The objective of an increase in self-concept score from pre- to post-test was fulfilled by approximately 40% of the pupils at each grade level but 5th, which had 19%. (See Table VI.) In view of research which shows that self-concept for minority pupils decreases steadily throughout their school careers, these increases in self-concept for many of the pupils in this program seem significant.

The psychomotor domain was evaluated in the acquisition of the skills required to perform Mexican dances and songs and to play Mexican or Spanish musical instruments. Teachers reported to the evaluator that every pupil in the project participated in learning these songs and dances. Demonstration of these talents by performing in programs for parents and the community has been discussed earlier in this report. Figures were given in Table II.

The Comprehensive Test of Basic Skills was administered to project pupils in grades 1-6 in February, 1975, by teachers, as a post-test for that year's evaluation. Data gathered in that administration were utilized as pre-test for this year in order to eliminate excessive testing for bilingual pupils and to allow a full year between pre- and post-tests. The CTBS was administered again in February of 1976 as a post-test. Level B was given in first grade, Level C in second, Level I in third and fourth, and Level II in fifth and sixth grades. These tests were scored by the company.

TABLE VI

PROJECTED SELF-CONCEPT INVENTORY  
PERCENTAGE OF PUPILS MAKING GAIN

| <u>Grade</u> | <u>Percentage</u> |
|--------------|-------------------|
| 1            | 39                |
| 2            | 36                |
| 3            | 43                |
| 4            | 45                |
| 5            | 19                |

The new Form S of the CTBS was used at all grade levels this year and at grade levels 1-3 last year. However, the old Form Q was used in grades 4-6 last year. Therefore conversion of Form Q scale scores to Form S scale scores was necessary for last year's grades 4-6. These conversions were performed by the computer, using a formula established by the company for sets of linear equations approximating the relationships between scale scores for S and Q batteries for a single grade/time of testing. The equation is this:  $Q = m \cdot S + b$ . Coefficients for subject matter areas by grade level are given in tables in the technical report. The scale score values for m and b and the Q scores were inserted into the equation, and the equivalent scale scores calculated therefrom.

Utilizing scale scores allows comparisons of pre- and post-test scores, regardless of test level. Means, interquartiles and medians were derived from scale scores, and then they were converted to grade equivalents or percentiles. For comparison purposes only scores for pupils who had both pre- and post-test scores were used. This procedure is followed in all pre- and post-test comparisons.

Table VII shows these comparisons in grade equivalents by grade level. Since first grade had no pre-test scores for comparison, it does not appear on this table. Second grade gained less than a year in all areas. Third and fourth grades accomplished better than a year's gain in most areas. Fifth and sixth grades succeeded in every area but reading. Thus reading performance is the weak area for three grades, and language performance is the strong area for all grades with an average of three months' gain above the norm for all five grade levels.

TABLE VII

COMPREHENSIVE TEST OF BASIC SKILLS  
COMPARISON OF PRE-TEST AND POST-TEST SCORES  
(Figures indicate mean grade equivalent\*)

| <u>Grade<br/>Level</u> | <u>Pre-Test<br/>or<br/>Post-Test</u> | <u>Reading</u> | <u>Language</u> | <u>Math</u> |
|------------------------|--------------------------------------|----------------|-----------------|-------------|
| 2nd                    | Pre-                                 | 1.5            | 1.5             | 1.6         |
|                        | Post-                                | 2.2            | 2.4             | 2.2         |
| 3rd                    | Pre-                                 | 2.1            | 1.8             | 2.4         |
|                        | Post-                                | 3.2            | 3.3             | 3.3         |
| 4th                    | Pre-                                 | 3.1            | 3.9             | 3.1         |
|                        | Post-                                | 4.2            | 5.1             | 4.3         |
| 5th                    | Pre-                                 | 4.0            | 3.9             | 3.8         |
|                        | Post-                                | 4.6            | 5.6             | 4.8         |
| 6th                    | Pre-                                 | 3.5            | 3.6             | 3.7         |
|                        | Post-                                | 4.0            | 4.6             | 4.9         |

\*Converted from scale score means. Pre-test date: February, 1975.  
Post-test date: February, 1976. Testing times: 1.5, 2.5, 3.5, 4.5, 5.5.,  
and 6.5. Only scores for pupils with both pre- and post-test used.

Table VIII (1976 results per grade level) reveals higher performance in all subject matter areas for pupils than in prior years of the project. First grade performance is one month ahead of the national norms, while second, third and fourth grade performance is only two or three months behind the norms. Fifth grade battery total is one year behind, and sixth grade is two years behind. (This sixth grade group of pupils has been weak in academic performance at each grade level, as shown in Table IX.)

Comparison of Table VII (scores for pupils in the project both last year and this) with Table VIII (scores for all pupils in the project this year) produces interesting findings. While means for reading and math are identical or quite similar, scores for language are four months to one year and two months higher in grades 4-6 for those pupils who have been in the project two successive years. It is possible to infer, at least, that continuing bilingual education in this district resulted in higher language performance on an achievement test this year.

#### LONGITUDINAL STUDY

Since this is the last year for this project's federal funding,\* a careful look at long range accomplishment is in order. For this purpose standardized achievement test scores with national norms seem the best instruments available. For the five-year period beginning in spring, 1972, interquartiles and medians were derived. Percentile norms were the basis for these figures. Scores for all pupils in the project were considered when deriving these interquartiles and medians.

The Metropolitan Achievement Test (1958 Edition) was the instrument used for the project for the first five years, 1969-1974. In 1974-75 the project shifted to the Comprehensive Test of Basic Skills, and figures for

\*No proposal for federal funds under either Title VII or ESAA has been submitted.

TABLE VIII  
 COMPREHENSIVE TEST OF BASIC SKILLS  
 1976 RESULTS  
 (Figures indicate mean grade equivalent.\*)

| <u>Grade<br/>Level</u> | <u>Reading</u> | <u>Language</u> | <u>Math</u> | <u>Battery<br/>Total</u> | <u>Reference<br/>Skills</u> | <u>Science</u> | <u>Social<br/>Studies</u> |
|------------------------|----------------|-----------------|-------------|--------------------------|-----------------------------|----------------|---------------------------|
| 1st                    | 1.6            | 1.4             | 1.6         | 1.6                      |                             |                |                           |
| 2nd                    | 2.2            | 2.4             | 2.2         | 2.3                      |                             | 1.9            | 2.3                       |
| 3rd                    | 3.4            | 3.3             | 3.3         | 3.3                      | 3.6                         | 3.1            | 3.2                       |
| 4th                    | 4.1            | 4.6             | 4.3         | 4.2                      | 4.4                         | 4.1            | 4.1                       |
| 5th                    | 4.5            | 4.4             | 4.6         | 4.5                      | 4.6                         | 4.2            | 4.2                       |
| 6th                    | 4.1            | 4.2             | 5.0         | 4.5                      | 4.3                         | 4.3            | 4.3                       |

\*Computed by converting discrete Raw Scores to Scale Scores to Grade Equivalents. Testing dates: 1.5, 2.5, 3.5, 4.5, 5.5. and 6.5.

spring, 1976 are drawn from the CTBS (1974 edition). Although there was a change in tests, the Anchor Study reveals that these tests/yield very closely similar scores, which are broadly comparable.

As can be seen in Table IX, a pattern emerges over the five-year period-- a pattern which extends to all subject matter areas and through all grade levels. The pattern is one of steadily increasing scores for all pupil groups, the lower, the middle/ and the upper. Were this only a one-year accomplishment, a case could be made for the change in tests being the cause, but when this accomplishment is prevalent throughout all subject areas and all grade levels over a period of five years, there is sufficient evidence to warrant a conclusion. This conclusion is that the bilingual education program of San Marcos, Texas, has shown highly impressive improvement over this five-year period.

Beginning with low medians ranging from the 10th to the 33rd percentile in reading, language and math, these medians have risen to range from the 21st to the 74th percentile. Medians for grades 1-4 are very close to national norms this year. Although medians are lower for grades 5 and 6, they show the same pattern of improvement. Tables X-XIV give a graphic picture of this accomplishment between spring, 1971, and spring, 1976.

Factors accounting for this gain are many. Among these, undoubtedly, are evaluation which pinpointed strengths and weaknesses of the program and consequent measures taken to alleviate weaknesses, greater teacher expertise in instruction due to experience and inservice training, use of more and better instructional materials, addition of an instructional coordinator, continuity of bilingual administrative personnel over the past four years, and commitment to bilingual education by district central administrative personnel over the last two years. The San Marcos Bilingual Education Project is to be congratulated for its instructional accomplishment which shows it to be a truly exemplary bilingual project for the nation.

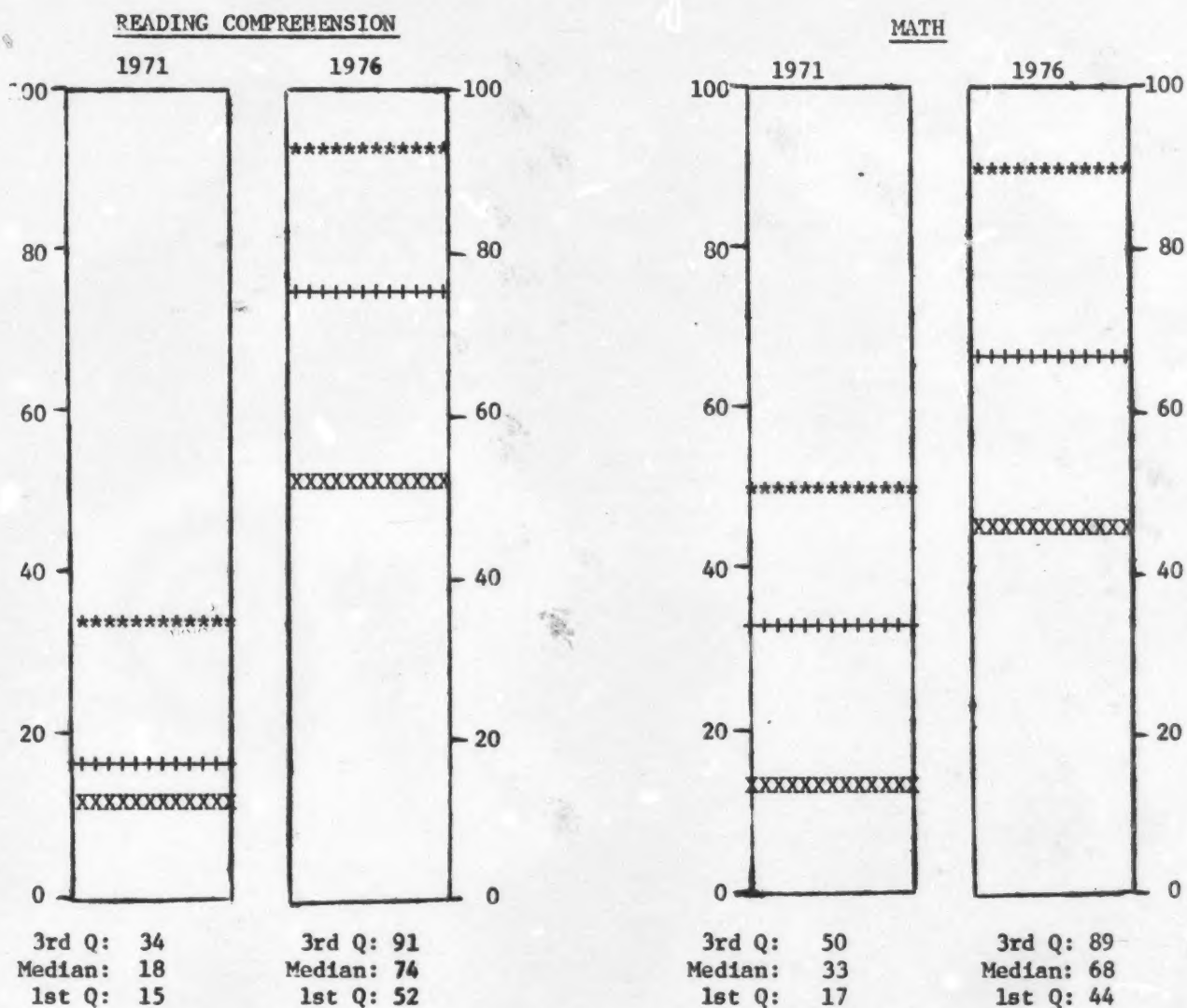
ACHIEVEMENT TEST PROGRESS  
BASED ON PERCENTILES  
(Figures indicate quartiles.)

24  
20



TABLE X

COMPARISON OF ACHIEVEMENT TEST RESULTS--FIRST GRADE  
(INTERQUARTILES BASED ON PERCENTILE)



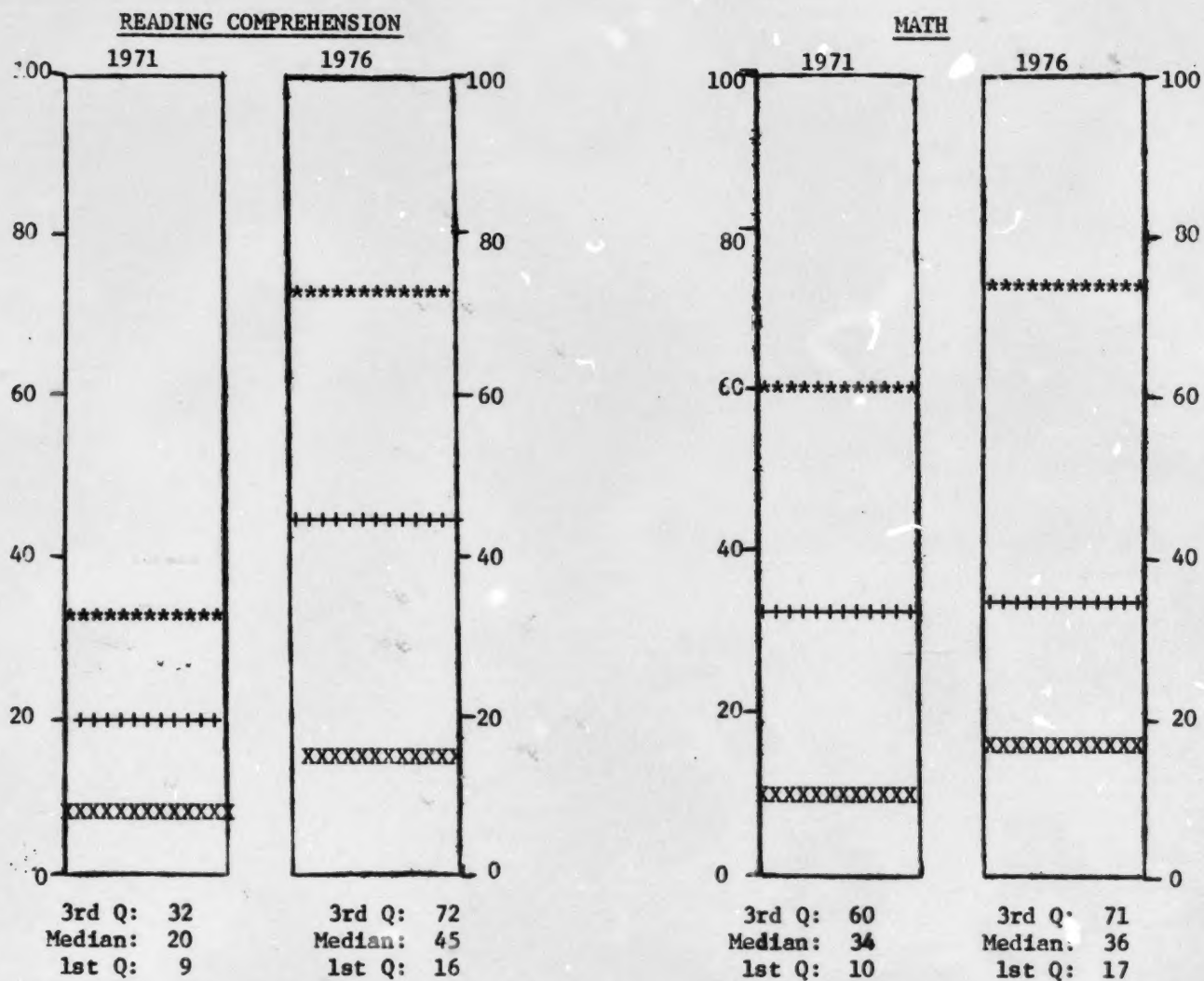
1st Quartile: XXXXX

Median: +++++

3rd Quartile: \*\*\*\*\*

TABLE XI

COMPARISON OF ACHIEVEMENT TEST RESULTS--SECOND GRADE  
(INTERQUARTILES BASED ON PERCENTILE)

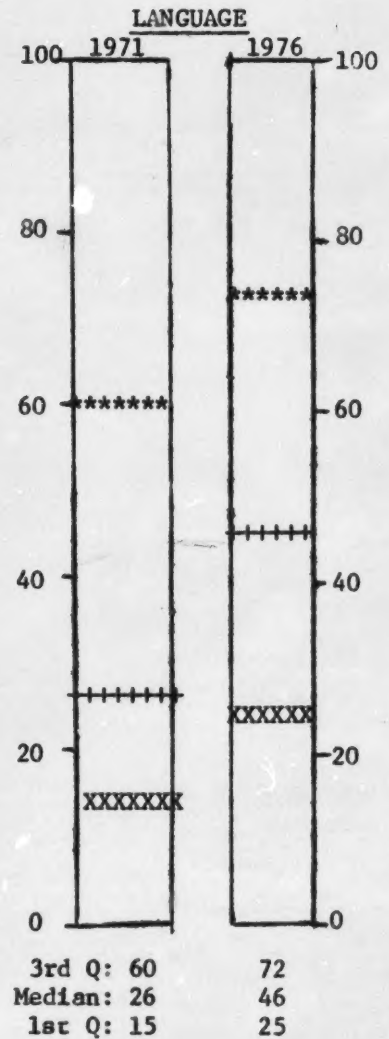
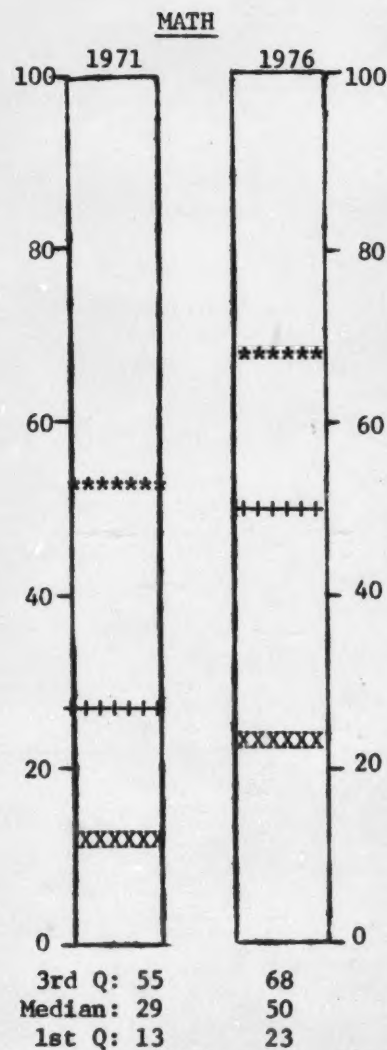
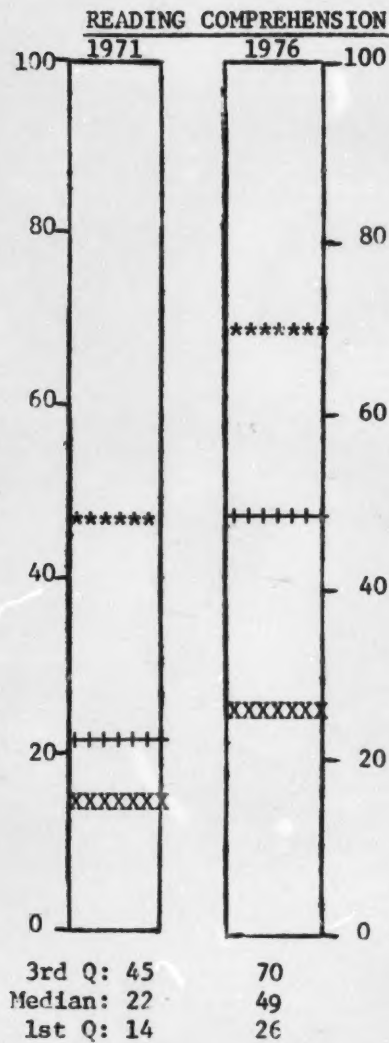


1st Quartile: XXXXX

Median: +++++

3rd Quartile: \*\*\*\*\*

TABLE XII

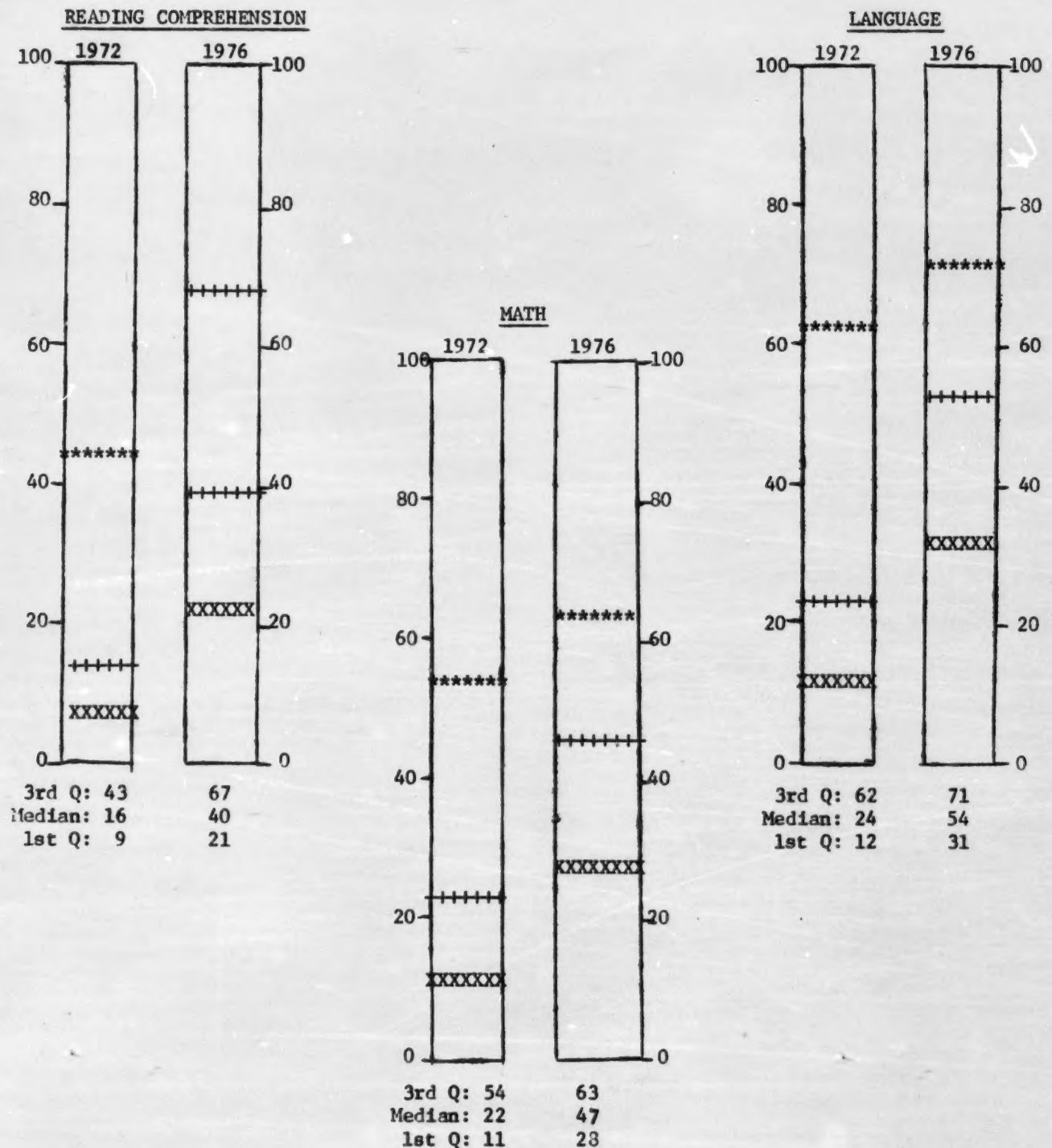
COMPARISON OF ACHIEVEMENT TEST RESULTS--THIRD GRADE  
(INTERQUARTILES BASED ON PERCENTILE)

1st Quartile: XXXXX

Median: +++++

3rd Quartile: \*\*\*\*\*

TABLE XIII

COMPARISON OF ACHIEVEMENT TEST RESULTS--FOURTH GRADE  
(INTERQUARTILES BASED ON PERCENTILE)

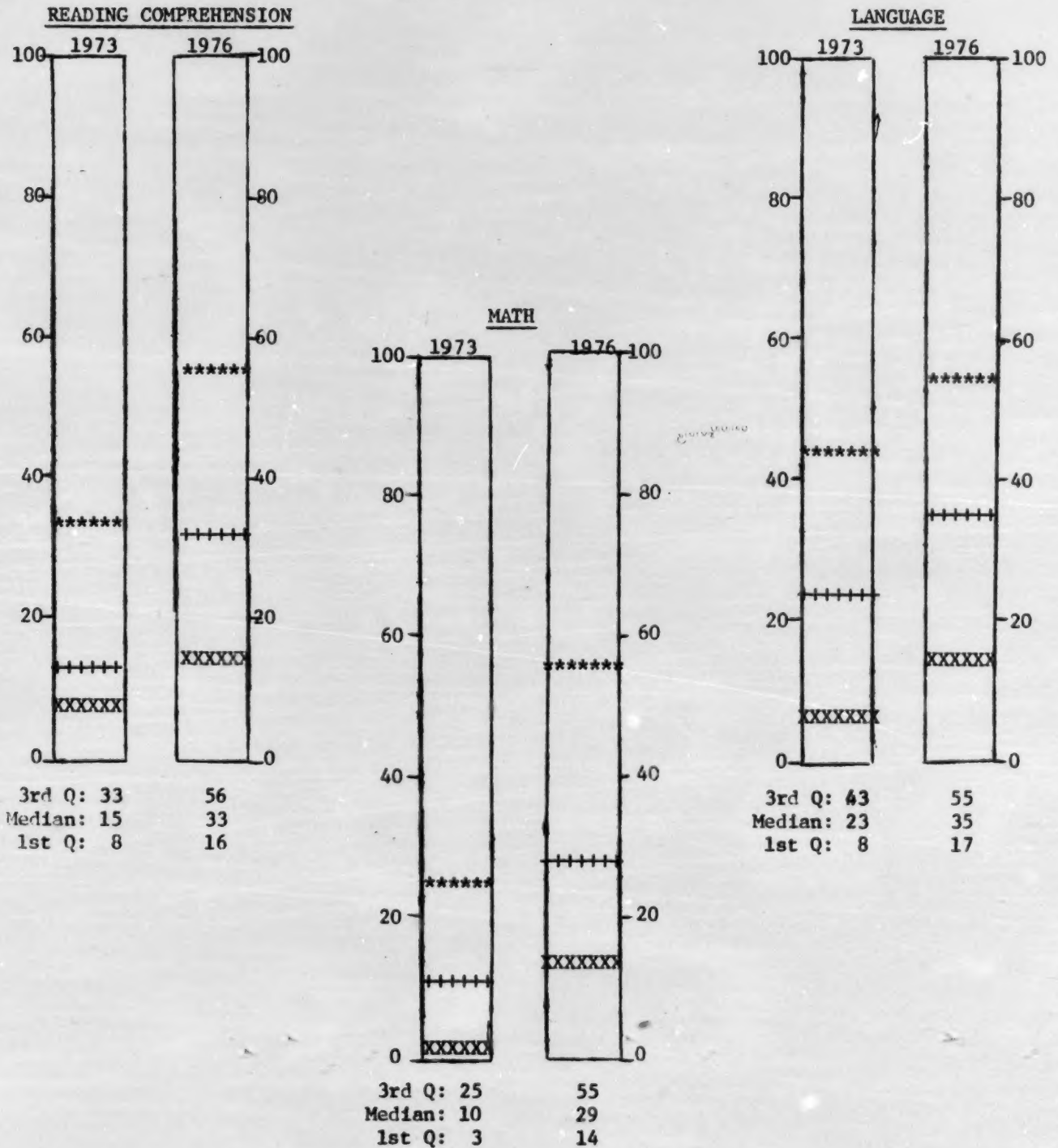
1st Quartile: XXXXXX

Median: +++++

3rd Quartile: \*\*\*\*\*

TABLE XIV

COMPARISON OF ACHIEVEMENT TEST RESULTS--FIFTH GRADE  
(INTERQUARTILES BASED ON PERCENTILE)



30

1st Quartile: XXXXX Median: +++++ 3rd Quartile: \*\*\*\*\*